

Applicant : Bhanjois, et al.  
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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An operating system, comprising:  
a non-preemptive microkernel executing two or more processes in accordance with a non-preemptive scheduling scheme, wherein each process executed by the non-preemptive microkernel is only interrupted for a higher priority process to execute when the process blocks or explicitly requests to be preempted; and  
one or more kernels each being executed as a process by the non-preemptive microkernel, wherein at least one of the one or more kernels executes an operating system as a dependent process, the operating system being a time-sliced operating system or a time-sliced microkernel.
- 2 – 3. (Cancelled)
4. (Currently Amended) The operating system of claim 1 [[2]], wherein the operating system is Unix.
5. (Previously Presented) The operating system of claim 1, wherein each of the two or more processes executed by the non-preemptive microkernel has its own stack.
6. (Previously Presented) The operating system of claim 1, wherein each of the two or more processes executed by the non-preemptive microkernel communicate using one or more messages.

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7. (Previously Presented) The operating system of claim 1, wherein each of the two or more processes executed by the non-preemptive microkernel has a unique process identifier (PID).

8. (Original) The operating system of claim 7, further comprising a mailbox coupled to a plurality of processes to service messages sent to a single PID.

9. (Previously Presented) The operating system of claim 1, wherein each of the two or more processes executed by the non-preemptive microkernel never terminates.

10. (Previously Presented) The operating system of claim 1, wherein one of the one or more kernels is a microkernel.

11. (Currently Amended) A method for operating a computer system including a CPU, comprising:

managing two or more processes with a non-preemptive microkernel, the microkernel executing the two or more processes in accordance with a non-preemptive scheduling scheme, wherein each process executed by the non-preemptive microkernel is only interrupted for a higher priority process to execute when the process blocks or explicitly requests to be preempted; [[and]]

executing one or more kernels as one or more processes managed by the non-preemptive microkernel; and

executing an operating system in one of the one or more kernels as a dependent process,  
the operating system being a time-sliced operating system or a time-sliced microkernel.

12 – 13. (Cancelled)

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14. (Currently Amended) The method of claim 11 [[12]], wherein the operating system is Unix.

15. (Previously Presented) The method of claim 11, wherein each of the two or more processes executed by the non-preemptive microkernel has its own stack.

16. (Original) The method of claim 11, further comprising performing inter-process communication using one or more messages.

17. (Previously Presented) The method of claim 11, wherein each of the two or more processes executed by the non-preemptive microkernel has a unique process identifier (PID).

18. (Previously Presented) The method of claim 17, further comprising servicing messages sent to a single PID by a plurality of processes using a mailbox.

19. (Previously Presented) The method of claim 11, further comprising executing the two or more processes without termination.

20. (Previously Presented) The method of claim 11, further comprising executing a microkernel in one of the one or more kernels.

21. (Currently Amended) A computer system, comprising:  
means for managing two or more processes with a non-preemptive microkernel, the microkernel executing the two or more processes in accordance with a non-preemptive scheduling scheme, wherein each process executed by the non-preemptive microkernel is only interrupted for a higher priority process to execute when the process blocks or explicitly requests to be preempted; [[and]]

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means for executing one or more kernels as one or more processes managed by the non-preemptive microkernel; and

means for executing an operating system in one of the one or more kernels as a dependent process, the operating system being a time-sliced operating system or a time-sliced microkernel.

22 – 23. (Cancelled)

24. (Currently Amended) The system of claim 21 [[22]], wherein the operating system is Unix.

25. (Previously Presented) The system of claim 21, wherein each of the two or more processes executed by the non-preemptive microkernel has its own stack.

26. (Original) The system of claim 21, further comprising means for performing inter-process communication using one or more messages.

27. (Previously Presented) The system of claim 21, wherein each of the two or more processes executed by the non-preemptive microkernel has a unique process identifier (PID).

28. (Previously Presented) The system of claim 21, further comprising means for servicing messages sent to a single PID by a plurality of processes using a mailbox.

29. (Previously Presented) The system of claim 21, further comprising means for executing each of the two or more processes executed by the non-preemptive microkernel without termination.

30. (Previously Presented) The system of claim 21, further comprising means for executing a microkernel in one of the one or more kernels.

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31. (Currently Amended) A computer, comprising:
- an interconnect bus;
- one or more processors coupled to the interconnect bus and adapted to be configured for server-specific functionalities including network processing, file processing, storage processing and application processing;
- a configuration processor coupled to the interconnect bus and to the processors, the configuration processor dynamically assigning processor functionalities upon request;
- one or more data storage devices coupled to the processors and managed by a file system;
- a non-preemptive microkernel executing two or more processes in accordance with a non-preemptive scheduling scheme, wherein each process executed by the non-preemptive microkernel is only interrupted for a higher priority process to execute when the process blocks or explicitly requests to be preempted; and
- one or more kernels each being executed as a process by the non-preemptive microkernel, wherein at least one of the one or more kernels executes an operating system as a dependent process, the operating system being a time-sliced operating system or a time-sliced microkernel.

32. (Cancelled)

33. (Previously Presented) The computer of claim 31, wherein the non-preemptive microkernel executes a network switch operating system as a dependent process.